

**B.Tech Sem – IV (2007 Course) (Electronics) : WINTER - 2018**

**SUBJECT: ANALOG COMMUNICATION**

Day: Wednesday  
Date: 14/11/2018

**W-2018-2759**

Time: 02.30 PM TO 05.30 PM  
Max Marks: 80

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**N.B:**

- 1) **Q. No. 1 and Q. No. 5 are COMPULSORY.** Out of remaining attempt **ANY TWO** question from each section.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Answer to both the sections should be written in **SEPARATE** answer book.
  - 4) Assume suitable data, if necessary.
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**SECTION-I**

- Q.1** a) Define noise and types of noise. (05)  
b) What is modulation index and percent modulation. (05)  
c) Compare Frequency Modulation and Amplitude Modulation. (04)
- Q.2** a) Differentiate monophonic and stereophonic sound system in detail. (07)  
b) What is a function of loudspeaker? Explain moving coil cone type loudspeaker with construction. (06)
- Q.3** a) Explain in detail the basic communication system with block diagram. (07)  
b) Discuss any one method of generation of single sideband signal (SSB). (06)
- Q.4** a) Discuss the Indirect method for FM generation. (07)  
b) Derive the mathematical expression for representation of FM signal. (06)

**SECTION-II**

- Q.5** a) Draw the diagram of envelope detector and explain its working with input and output waveforms. (06)  
b) Describe space wave propagation. (04)  
c) Explain components of telephone network in short. (04)
- Q.6** a) Draw and explain block diagram of FM receiver system. (07)  
b) Draw and explain block diagram of ISB receiver with frequency synthesizer. (06)
- Q.7** a) Discuss troposcopic scatter propagation. (07)  
b) Compare sky wave and ground wave propagation. (06)
- Q.8** a) Explain different tones in telephone system. (07)  
b) Explain cross bar exchange system in details. (06)

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